(b) if so, by when the above targets would be achieved and whether any measures have been initiated to achieve the same;

(c) if so, the details thereof;

(d) whether the figures of wind energy potential in the country can be revised upwards once the said 45,000 MW figure is achieved; and

(e) if so, how much hike in the wind energy could be projected?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI VILAS MUTTEMWAR): (a) to (c) Integrated Energy Policy has projected capacity addition of 30,000 MW from wind by the year 2032, which would be a major part of the realizable potential. Efforts by the Government to promote setting up of commercial wind power projects through private sector investments by way of fiscal incentives such as concessional import duty on certain components of wind electric generator, excise duty exemption, ten years' tax holiday on income generated from wind power projects, benefit of accelerated depreciation and loan from Indian Renewable Energy Development Agency (IREDA) and other financial institutions are being continued during the Eleventh Plan Period. Further, wind power is being given preferential tariff in potential States. Continuous efforts are made to identify new wind power potential areas through wind resource assessment studies by the Centre for Wind Energy Technology, Chennai.

(d) and (e) Upward revision of the potential of wind energy would depend upon identification of new wind power potential areas including off-shore areas, development of improved and large and turbines to extract more energy from the available wind regime in the country and availability of more land for setting up wind power projects in potential areas and electricity grid for evacuation of wind power.

Development of solar energy in Delhi

3638. MS. MABEL REBELLO: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether it is proposed to develop solar power in National Capital Territory of Delhi, to overcome power shortage;

(b) if so, the details thereof;

(c) whether Government proposes to give any kind of incentives to households who go in for the above system; and

(d) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI VILAS MUTTEMWAR): (a) and (b) No, Sir. However, Government of NCT of Delhi have been promoting the use of solar water heaters and energy conservation devices to overcome power shortages and for Demand Side Management. They have made the use of solar water heaters mandatory for certain categories of buildings, apart from certain incentives to the users.

(c) and (d) The Government of NCT of Delhi have announced a rebate of Rs. 6000/- per system to households for installation of solar water heaters. In addition, the Ministry of

New and Renewable Energy is providing interest subsidy on upfront basis so that loans at an effective interest rate of 2% are available to the domestic users from various banks and Financial Institutions.

Solar energy generation

3639. SHRI N.R. GOVINDARAJAR: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the quantum of solar energy generated in the country, as on date;

(b) whether Government proposes to give priority to solar energy over hydro and thermal power, as the cost of production of solar energy is very less;

(c) if so, the details thereof;

(d) the fund allocated to each state to popularize solar energy during the last three years; and

(e) the details of manufacturers of solar energy systems in each State, as on date?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI VILAS MUTTEMWAR): (a) to (c) Solar energy can be harnessed through two routes, namely solar photovoltaic (PV) and solar thermal. In photovoltaic route, it is directly converted to electricity while in solar thermal route it is first converted into heat and then to electricity.

A total of 33 grid interactive solar photovoltaic power plants have been installed in the country with financial assistance from the Ministry. These plants, with aggregate capacity of 2.125 Megawatt peak (MWp), are estimated to generate about 2.5 million units of electricity in a year.

In addition, the solar energy systems are being used for stand-alone applications in lighting, telecommunication, small power requirements, battery charging, water heating and cooking etc. So far around 14.5 lakh solar photovoltaic systems aggregating to about 125 Megawatt peak solar photovoltaic module capacity have been installed in the country. Further, about 6.15 lakh solar cookers and about 23 lakh square metre collector area has been installed for solar water heating applications, which is equivalent to about 1600 Megawatt thermal capacity.

The utilization of solar energy in the country is regularly increasing, however, the high initial cost of the solar energy systems is a barrier in its large-scale utilization. The estimated cost of electricity from grid connected solar energy plant is around Rs. 12-15 per unit, which is high compared to electricity generated from conventional sources including thermal power and other renewable energy sources such as wind, small hydro and biomass.

Recently, a new demonstration scheme has been announced by the Ministry to provide generation based incentive for MW-capacity grid interactive solar power projects in the country.

(d) The details of state-wise release of funds during the last three years for various solar energy programmes are given in Statement-I (*See* below).

(e) The State-wise details of manufacturers of solar photovoltaic (SPV) cells/modules, flat plate collector (FPC) and evacuated tube collector (ETC) based solar water heating systems and solar cookers are given in Statement-II.